TRANSLATION PATENT COOPERATION TREATY POT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

| Applicant's or agent's file reference WT 12/03 | FOR FURTHER ACTION | See Form PCT/IPEA/416 | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--|--|
| International application No. | International filing date (day/month/year) | Priority date (day/month/year) | | |
| PCT/EP2004/010572 | 21.09.2004 | 23.09.2003 | | |
| International Patent Classification (IPC) or nat | ional classification and IPC | | | |
| F28F27/02, F01M11/03 | | | | |
| Applicant HENGST GMBH & CO. KG | | | | |
| This report is the international preli under Article 35 and transmitted to the | | International Preliminary Examining Authority | | |
| 2. This REPORT consists of a total of | 7 sheets, including | g this cover sheet. | | |
| 3. This report is also accompanied by A | NNEXES, comprising: | | | |
| a. (sent to the applicant and | to the International Bureau) a total of 4 | sheets, as follows: | | |
| , , , , , , , , , , , , , , , , , , , , | | amended and are the basis for this report and/or | | |
| sheets containing re Instructions). | ctifications authorized by this Authority (see Ru | ale 70.16 and Section 607 of the Administrative | | |
| the disclosure in the | - | siders contain an amendment that goes beyond in item 4 of Box No. I and the Supplemental | | |
| Box. | | | | |
| b (sent to the International | Bureau only) a total of (indicate type and number | er of electronic carrier(s)) | | |
| , containing a sequence listing and/or tables | | | | |
| related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions). | | | | |
| This report contains indications relations | ng to the following items: | | | |
| Box No. I Basis of the | - | | | |
| Box No. II Priority | | | | |
| Box No. III Non-establi | shment of opinion with regard to novelty, inven- | tive step and industrial applicability | | |
| Box No. IV Lack of uni | ty of invention | | | |
| DON THU. | tatement under Article 35(2) with regard to nove dexplanations supporting such statement | elty, inventive step or industrial applicability; | | |
| | numents cited | | | |
| Box No. VII Certain def | ects in the international application | | | |
| Box No. VIII Certain obs | ervations on the international application | | | |
| Date of submission of the demand | Date of completion of the | us report | | |
| bate of submission of the defining | Bate of completion of the | потеры | | |
| Name and mailing address of the IPEA/EP | Authorized officer | | | |
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| Facsimile No. | Telephone No. | | | |

International application No.

PCT/EP2004/010572

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

| Box | No. I | | Basis of the report | | |
|-----|-------------|--------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------------|
| 1. | | | I to the language , this report is based on the internation der this item. | nal application in the language in | which it was filed, unless otherwise |
| | | | report is based on translations from the original langua a is the language of a translation furnished for the purp | · | , |
| | | | international search (Rule 12.3 and 23.1(b)) | | |
| | | Щ | publication of the international application (Rule 12.4 |) | |
| | | | international preliminary examination (Rule 55.2 and | or 55.3) | |
| 2. | rece | | I to the element s of the international application, this office in response to an invitation under Article 14 ar : | | |
| | | the in | ternational application as originally filed/furnished | | |
| | \boxtimes | the de | escription: | | |
| | | pages | 1-17 | | as originally filed/furnished |
| | | pages | * | received by this Authority on | |
| | | pages | * | received by this Authority on | |
| | \boxtimes | the cl | aims: | | |
| | | nos. | | | as originally filed/furnished |
| | | nos.* | | | r with any statement) under Article 19 |
| | | nos.* | | received by this Authority on | 20.07.2005 with letter |
| | | nos.* | | received by this Authority on | |
| | \boxtimes | the dr | awings: | | |
| | | sheets | | | as originally filed/furnished |
| | | sheets | | | |
| | | sheets | | | |
| | П | | nence listing and/or any related table(s) – see Supplem | | |
| | \exists | _ | | ental Box Relating to Sequence L | isting. |
| 3. | ш | | mendments have resulted in the cancellation of: | | |
| | | | the description, pages | | |
| | | | the claims, nos. | | |
| | | | the drawings, sheets/figs | | |
| | | H | the sequence listing (specify): | | |
| | _ | Ш | 3 (7 201 201 201 201 | | |
| 4. | \boxtimes | they l | report has been established as if (some of) the amend have been considered to go beyond the disclosure as fi | led, as indicated in the Supplemen | stal Box (Rule 70.2(c)). |
| | | | the description, pages | | <u> </u> |
| | | | the claims, nos. 1 | | |
| | | 님 | the drawings, sheets/figs | | |
| | | 닏 | the sequence listing (specify): | | |
| | | Ш | any table(s) related to sequence listing (specify): | | |
| * | If ite | т 4 ар | plies, some or all of those sheets may be marked "sup | erseded." | |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/010572

| Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------|--------|------|------|
| 1. | Statement | | | | |
| | Novelty (| (N) | Claims | 1-15 | YES |
| | | | Claims | | NO |
| | Inventive | step (IS) | Claims | 1-15 | YES |
| | | | Claims | | _ NO |
| | Industria | l applicability (IA) | Claims | 1-15 | YES |
| | | | Claims | | NO |
| | | | | | |

2. Citations and explanations (Rule 70.7)

Reference is made to the following document:

D1: DE 196 54 365 A1 (BEHR GMBH & CO, 70469 STUTTGART, DE) 25 June 1998 (1998-06-25)

- 1 INDEPENDENT CLAIM 1
- 1.1 Document D1 is considered the prior art closest to the subject matter of claim 1 and discloses (the references between parentheses refer to that document) an oil cooler (abstract) for an internal combustion engine, comprising a support part (16) which can be flanged onto an engine block of the internal combustion engine and supports the oil cooler, the oil cooler being provided with channels (11, 12; 17, 18) for guiding oil and water, one of the channels being an oil cooler bypass channel (17) which connects an oil inlet (9) of the oil cooler to an oil outlet (9') of the oil cooler.

The subject matter of claim 1 thus differs from that known from D1 in that at least the major part

Article 33(2)).

| Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | of the length of the oil cooler bypass channel |
| | (17) extends through an oil cooler base plate |
| | which seals the oil cooler on the support side and |
| | extends on the oil cooler side through the |
| | remaining part of the oil cooler. |
| | |
| | The subject matter of claim 1 is thus novel (PCT |

1.2 The solution to this problem as proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)) for the following reasons:

Document D1 discloses an oil cooler bypass channel, at least the major part of the length of which extends through an intermediate plate (14) sealingly arranged between the oil cooler and the support part (16).

The application addresses the problem of producing an oil cooler with few individual parts. The concept of integrating the oil cooler bypass channel in an oil cooler base plate reduces the number of oil cooler plates, since the intermediate plate is no longer needed.

In order to integrate the oil cooler bypass channel in an oil cooler base plate, research is necessary in order to determine the geometry of the bypass channel in the oil cooler base plate and in the support part and in order to guarantee

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| Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | sealing with the support part. |
| | A person skilled in the art familiar with document |
| | D1 would therefore not arrive at the subject |
| | matter of the first claim without thereby being |
| | inventive. |
| 2 | DEPENDENT CLAIMS |
| | Claims 2 to 13 are dependent on claim 1 and |
| | therefore likewise meet the PCT requirements for |
| | novelty and inventive step. |
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International application No.
PCT/EP2004/010572

| Box No. VII | Certain defects in the international application | |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------|--|
| The following defects in the form or contents of the international application have been noted: | | |
| | | |
| | Contrary to PCT Rule $5.1(a)(ii)$, the description | |
| | does not cite document D1 or indicate the relevant | |
| | prior art disclosed therein. | |
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Supplemental Box

In case the space in any of the preceding boxes is not sufficient. Continuation of:

Box I

Basis of the report

The amendments submitted with the letter of 20 July 2005 introduce substantive matter which, contrary to PCT Article 34(2)(b), goes beyond the disclosure in the international application as filed. The amendments concern the base plate of the oil cooler. In the original application, the oil cooler is sealed by said plate on the support side. Nowhere in the original application is it stated that said plate forms part of the oil cooler. The drawings also depict a separate oil cooler base plate. The amended claim, however, mentions "...an oil cooler base plate which forms part of the oil cooler...". This also covers the fact of the oil cooler base plate and the oil cooler being made together from one part (e.g. by milling from a whole piece), which, as has already been mentioned, is not covered by the original application.